

What is claimed is:

1. An image, comprising:
an image, wherein the image contains two or more layers of data encoded in a watermark.
2. The image of claim 1, wherein the two or more layers of data are encoded in a high coding rate watermark.
3. The image of claim 1, wherein the watermark contains two or more sub-watermarks, each sub-watermark of a differing encoding method and/or transform.
4. The image of claim 3, wherein each layer of the two or more layers of data are encoded into a selected sub-watermark.
5. The image of claim 1, wherein each of the two or more layers of data contain one or more data areas.
6. The image of claim 1, wherein the image contains one or more image objects, where at least one image object contains two or more layers of data encoded in a watermark.
7. The image of claim 1, wherein the two or more layers of data of the image includes at least one of a manufacturer information layer, an object characteristics layer, an order information layer, and a manufacturer designated layer.
8. An image, comprising:
an image, wherein the image contains one or more sub-images, where at least one sub-image contains two or more layers of data in a watermark.
9. The image of claim 8, wherein the two or more layers of data are encoded in a high coding rate watermark.
10. The image of claim 8, wherein the watermark contains two or more sub-watermarks, each sub-watermark of a differing encoding method and/or transform.

11. A method of watermarking an image, comprising:
encoding two or more layers of metadata into an image in a watermark.
12. The method of claim 11, wherein encoding two or more layers of metadata into an image in a watermark further comprises encoding two or more layers of metadata into an image in a high coding rate watermark.
13. The method of claim 11, wherein encoding two or more layers of metadata into an image in a watermark further comprises encoding two or more layers of metadata into an image in a watermark, where the watermark contains two or more sub-watermarks, each sub-watermark of a differing encoding method and/or transform.
14. The method of claim 13, wherein each layer of the two or more layers of metadata are encoded into a selected sub-watermark.
15. The method of claim 11, wherein encoding two or more layers of metadata into an image in a watermark further comprises encoding one or more data areas in at least one of the two or more layers of metadata.
16. The method of claim 11, further comprising:
encoding two or more layers of metadata in a watermark in one or more image objects of the image.
17. The method of claim 11, encoding two or more layers of metadata into an image in a watermark further comprises encoding at least one of a manufacturer information layer, an object characteristics layer, an order information layer, and a manufacturer designated layer.
18. A method of watermarking at least one sub-image of an image, comprising:
encoding the plurality of layers of data in a watermark in the at least one sub-image.

19. The method of claim 18, wherein encoding the plurality of layers of data in a watermark in the at least one sub-image further comprises encoding the plurality of layers of data in a high coding rate watermark.
20. The method of claim 18, wherein encoding the plurality of layers of data in a watermark in the at least one sub-image further comprises encoding the plurality of layers of data in a watermark containing a plurality of sub-watermarks, each sub-watermark encoded with a different encoding method and/or transform.
21. The method of claim 20, wherein each layer of the plurality of layers of data are encoded into a separate sub-watermark.
22. The method of claim 18, wherein encoding the plurality of layers of data in a watermark in the at least one sub-image further comprises encoding one or more data areas in the two or more layers of data of the at least one sub-image.
23. A computer-readable medium having computer-readable instructions stored thereon for execution by a processor to perform a method comprising:
encoding two or more layers of metadata into an image in a watermark.
24. The computer-readable medium of claim 23, wherein encoding two or more layers of metadata into an image further comprises encoding two or more layers of metadata in one or more image objects of the image, where each of the one or more image objects is encoded in a watermark.
25. The computer-readable medium of claim 23, wherein the two or more layers of metadata are encoded in a high coding rate watermark.
26. The computer-readable medium of claim 23, wherein the watermark contains two or more sub-watermarks, each sub-watermark of a differing encoding method and/or transform.

27. The computer-readable medium of claim 26, wherein each of the two or more layers of metadata are encoded into a selected sub-watermark.
28. A method of operating a printer, comprising:
receiving a print job containing an image and two or more layers of metadata; and
encoding the two or more layers of metadata into a watermark in an image.
29. The method of claim 28, wherein encoding the two or more layers of metadata into a watermark in an image further comprises encoding the two or more layers of metadata in a high coding rate watermark in an image.
30. The method of claim 28, wherein encoding the two or more layers of metadata into a watermark in an image further comprises encoding the two or more layers of metadata into a watermark containing a plurality of sub-watermarks, each sub-watermark encoded with a different encoding method and/or transform.
31. The method of claim 30, wherein each layer of the two or more layers of metadata are encoded into a separate sub-watermark.
32. The method of claim 28, wherein encoding two or more layers of metadata into a watermark in an image further comprises encoding the two or more layers of metadata into a watermark in one or more image objects of the image.
33. The method of claim 28, wherein encoding two or more layers of metadata into a watermark in an image further comprises selecting a subset of the two or more layers of metadata and encoding the subset layers of metadata in the image.
34. The method of claim 33, wherein selecting a subset of the two or more layers of metadata and encoding the subset layers of metadata in the image further comprises printing the subset layers of metadata as text with the image.
35. The method of claim 33, wherein selecting a subset of the two or more layers of metadata and encoding the subset layers of metadata in the image further comprises

- selecting the subset of the two or more layers of metadata via user selection of the subset at the printer.
36. The method of claim 33, wherein selecting a subset of the two or more layers of metadata and encoding the subset layers of metadata in the image further comprises selecting the subset of the two or more layers of metadata by entry of a PIN and/or a user ID at the printer.
 37. The method of claim 28, wherein receiving a print job containing an image and two or more layers of metadata further comprises receiving and retaining at the printer a print job containing an image and two or more layers of metadata.
 38. The method of claim 28, wherein receiving a print job containing an image and two or more layers of metadata further comprises receiving a print job containing an image and two or more layers of metadata, wherein the print job is defined in a page description language (PDL) having at least one raster or vector data section and at least one metadata section.
 39. The method of claim 38, wherein receiving a print job containing an image and two or more layers of metadata, wherein the print job is defined in a page description language (PDL) having at least one raster or vector data section and at least one metadata section further comprises receiving a print job containing an image and two or more layers of metadata, wherein the print job is defined in a page description language (PDL) having one or more image objects, each image object defined with a raster or vector data section and a metadata section.
 40. The method of claim 38, wherein the page description language (PDL) is one of PCL5, PCL6, and Postscript.
 41. A method of accessing data encoded in an image, comprising:
decoding a watermark containing two or more layers of data with a reader; and
selecting a subset of the two or more data layers to view.

42. The method of claim 41, further comprising:
selecting an image object having a watermark.
43. The method of claim 41, wherein decoding a watermark containing two or more layers of data with a reader further comprises decoding a high coding rate watermark containing two or more layers of data with a reader.
44. The method of claim 41, wherein decoding a watermark containing two or more layers of data with a reader further comprises decoding two or more layers of data from a watermark containing a plurality of sub-watermarks, each sub-watermark encoded with a different encoding method and/or transform.
45. The method of claim 41, wherein selecting a subset of the two or more data layers to view further comprises selecting a subset of the two or more data layers to view via one of a user input to the reader, a configuration input to the reader, and an input of a user ID and/or PIN to the reader.
46. The method of claim 41, further comprising:
executing a further process based on information incorporated in the selected subset of data layers.
47. The method of claim 46, wherein executing a further process based on information incorporated in the selected subset of data layers further comprises executing a further process to accomplish one of accessing the internet, accessing a database, accessing a program, enabling execution of an application, enabling access to a computer system, and decoding encrypted content.
48. A method of defining multiple layers of metadata for a watermark in an image,
comprising:
associating an image with two or more layers of metadata in an application; and
encoding the image and two or more layers of metadata into a page description language (PDL) definition.

49. The method of claim 48, wherein encoding the image and two or more layers of metadata into a page description language (PDL) definition further comprises encoding the two or more layers of metadata into a page description language (PDL) definition for a high coding rate watermark.
50. The method of claim 48, wherein encoding the image and two or more layers of metadata into a page description language (PDL) definition further comprises encoding the two or more layers of metadata into a page description language (PDL) definition for a watermark containing a plurality of sub-watermarks, each sub-watermark encoded with a different encoding method and/or transform.
51. The method of claim 50, wherein each layer of the two or more layers of metadata are encoded into a separate sub-watermark.
52. The method of claim 48, wherein encoding two or more layers of metadata and image into a page description language (PDL) definition further comprises encoding the two or more layers of metadata into a watermark of one or more image objects of the image.
53. The method of claim 48, wherein associating an image with two or more layers of metadata in an application further comprises associating one or more image objects of the image with two or more layers of metadata.
54. The method of claim 53, wherein associating one or more image objects of the image with two or more layers of metadata further comprises associating one or more image objects of the image with two or more layers of metadata, where the two or more layers of metadata are associated with each image object by selecting the image object and defining the metadata layers by one of a right click on the image object, selecting a menu item, entering the metadata in a spreadsheet page associated with the selected image object, and defining the metadata for the selected image object in an associated configuration file.

55. The method of claim 48, wherein the page description language (PDL) is one of PCL5, PCL6, and Postscript.
56. The method of claim 48, wherein encoding the image and two or more layers of metadata into a page description language (PDL) definition further comprises encoding the image and two or more layers of metadata into a page description language (PDL) definition, wherein the PDL contains at least one raster or vector data section and at least one metadata section.
57. The method of claim 56, wherein encoding the image and two or more layers of metadata into a page description language (PDL) definition, wherein the PDL contains at least one raster or vector data section and at least one metadata section further comprises encoding the image and two or more layers of metadata into a page description language (PDL) definition, wherein the PDL contains one or more image objects, each image object defined with a raster or vector data section and a metadata section.
58. The method of claim 48, wherein encoding the image and two or more layers of metadata into a page description language (PDL) definition further comprises selecting a subset of the two or more layers of metadata and encoding the subset layers of metadata in the PDL.